

**ABSTRACT**

**[025]** A system and method are disclosed for dividing a network into clock partitions to limit the overhead created by transmitting clock sources. A clock partition can be implemented through several methods. A first method turns off the clock topology exchange on ports connected to the nodes outside the partition. A second method appends a four-byte partition identifier to network clock distribution protocol (NCDP) messages. A third method uses private network-network interface (PNNI) peer group identification to determine the clock partition group.